ROUTE RECON

MILITARY POLICE FUNCTIONS

- MANEUVER AND MOBILITY SUPPORT
- AREA SECURITY
- LAW AND ORDER
- EPW OPERATIONS

MANEUVER AND MOBILITY SUPPORT

- ROUTE RECONNAISSANCE AND SURVEILLANCE
- MSR REGULATION AND ENFORCEMENT
- STRAGGLER AND DISLOCATED CIVILIAN CONTROL
- AREA DAMAGE CONTROL

ROUTE RECONNAISSANCE

- ROAD CONDITIONS/CAPABILITIES
- ENEMY ACTIVITY
- CONTAMINATED AREAS
- CRITICAL POINTS/ OBSTRUCTIONS
- POTENTIAL AMBUSH SITES

RECONNAISSANCE

- A MISSION UNDERTAKEN TO OBTAIN, BY VISUAL OBSERVATION OR OTHER DETECTION METHODS, INFORMATION ABOUT THE ACTIVITIES AND RESOURCES OF AN ENEMY OR POTENTIAL ENEMY **OR** TO SECURE DATA CONCERNING THE METEOROLOGICAL, HYDROGRAPHIC, OR GEOGRAPHIC CHARACTERISTICS OF A PARTICULAR AREA.
- CONSISTS OF ALL DIRECTED EFFORTS IN THE THEATER TAKEN TO COLLECT INFORMATION ON THE ENEMY AND THE AREA OF OPERATIONS
  - IT PRODUCES INTELLIGENCE
  - IT IS A CONTINUOUS RESPONSIBILITY

TYPES OF RECONNAISSANCE

- ROUTE
- ZONE
- AREA

ROUTE RECONNAISSANCE

- OBTAINS INFORMATION ABOUT ENEMY ACTIVITY, OBSTACLES (INCLUDING NBC), ROUTE CONDITIONS, AND CRITICAL TERRAIN FEATURES ALONG A SPECIFIC ROUTE.

ZONE RECONNAISSANCE

- A MISSION CONDUCTED TO GAIN DETAILED INFORMATION ABOUT NATURAL AND MANMADE FEATURES, AND ENEMY PRESENCE/ACTIVITY WITHIN A SPECIFIC BOUNDARY

AREA RECONNAISSANCE

- A MISSION CONDUCTED TO GAIN INFORMATION ABOUT A SPECIFIC LOCATION AND THE TERRAIN IMMEDIATELY SURROUNDING IT.

METHODS OF RECONNAISSANCE

- MAP
- GROUND
- AIR
- AIR-GROUND

ROUTE RECONNAISSANCE REPORT

- HASTY
- DELIBERATE

ROUTE RECONNAISSANCE REPORT

- HASTY (MP'S CONDUCT HASTY RECON)
  - OVERLAY
  - ROAD RECON REPORT (DA FM 1248) (MPs)
  - ENGINEER RECON REPORT (DA FM 1711-R) (ENGR)
- DELIBERATE
  - OVERLAY
  - ENGINEER RECON REPORT (DA FM 1711-R)
  - ROAD RECON REPORT (DA FM 1248)
  - BRIDGE RECON REPORT (DA FM 1249)
  - TUNNEL RECON REPORT (DA FM 1250)
  - FOOD RECON REPORT (DA FM 1251)
  - FERRY RECON REPORT (DA FM 1252)

PURPOSE OF ROUTE RECONNAISSANCE

- Assist in development of Traffic Control Plan
- Update Traffic Circulation Plan
- Used to formulate Highway Traffic Regulation Plan

PLANNING CONSIDERATIONS FOR ROUTE RECON

- Find and report all enemy forces
- Determine trafficability
- Reconnoiter lateral routes to limit of direct fire
- Inspect all bridges
- Locate fords or crossing sites near bridges
- Inspect overpasses, underpasses and culverts
- Locate holding areas
- Locate mines, obstacles and barriers
- Locate bypasses
- Report up all information

ROAD CLASSIFICATION FORMULA

- LIMITING CHARACTERISTICS
- WIDTH
- ROAD SURFACE MATERIAL
- LENGTH
- OBSTRUCTIONS
- BLOCKAGE

ROAD CLASSIFICATION FORMULA

Bcg 8/9 K (5.2KM) (OB) (W)

ROAD CLASSIFICATION FORMULA EXAMPLES

- A14/16 nb (6.2KM)
- Bfd (c?) 10/12 pb (7.05KM) (OB) (W)
- Bg 7/9 k (4.3KM) (OB) (T)

ROUTE CLASSIFICATION FORMULA

7m Y 70 6m (OB) (W)

ROUTE CLASSIFICATION FORMULAS

7m Y 70 6m (OB) (W)

- MINIMUM TRAVELED WAY WIDTH
- ROUTE TYPE
  - X: ALL WEATHER
  - Y: LIMITED ALL WEATHER
  - Z: FAIR WEATHER
- LOWEST LOAD CLASSIFICATION
- LOWEST OVERHEAD CLEARANCE

ROUTE CLASSIFICATION FORMULA (Cont.)

- OBSTRUCTIONS
  - OVERHEAD CLEARANCE LESS THAN 4.3 METERS
  - EXCESSIVE GRADES 7 % OR GREATER
  - SHARP CURVES WITH RADIUS OF 25 METERS OR LESS
  - TRAVELED WAY WIDTHS LESS THAN

WHEELED	TRACKED	FLOW
SINGLE	5.5M= 18 FT	6.0M= 19.5 FT
DOUBLE	7.0M= 23 FT	8.0M= 26FT

  - BLOCKAGE
    - W= FLOODING
    - T= SNOW

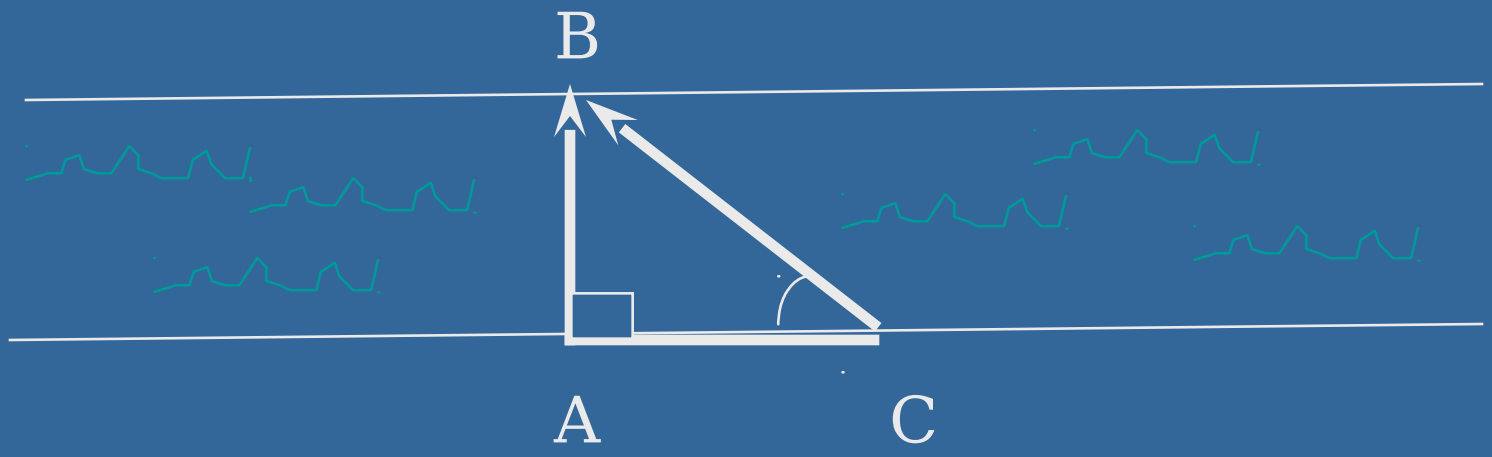
ROUTE CLASSIFICATION FORMULA EXAMPLES

- 8m X 70 5.3m
- 5.2mY 45 5.0m (OB) (T)
- 4m Z 50 5.5m (OB) (W)
- 6m Y 50 4.2m (OB) (W)
- 6.5m X 60 (∞W)

- T)

RECONNAISSANCE FORMULAS

WIDTH OF STREAM FORMULA



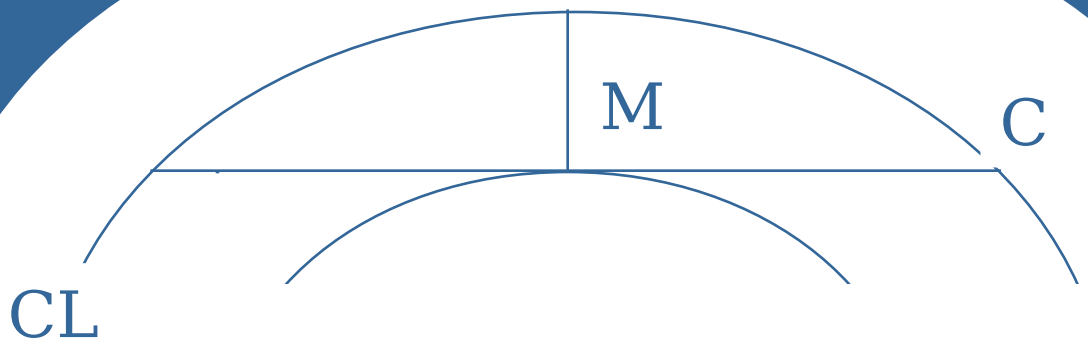
A IS THE POINT ON THE NEAR SHORE
B IS THE POINT ON THE FAR SHORE
AB IS THE DISTANCE TO BE MEASURED
AZIMUTH OF AB IS 315^0
AZIMUTH OF CB IS 270^0
DIFFERENCE BETWEEN AZIMUTH AB AND CB IS 45^0
DISTANCE ALONG AC EQUALS DISTANCE ALONG AB

RADIUS OF A CURVE

FORMULA

$$R = \frac{C^2}{8M} + \frac{M}{2}$$

RADIUS OF A CURVE



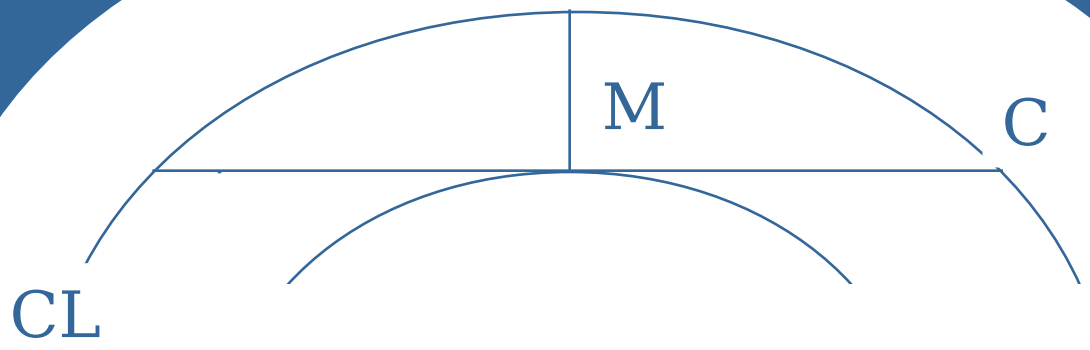
$$R = \frac{C^2}{8M} + \frac{M}{2}$$

M=MIDDLE ORDINATE

C= CHORD

CL= CENTERLINE

RADIUS OF A CURVE

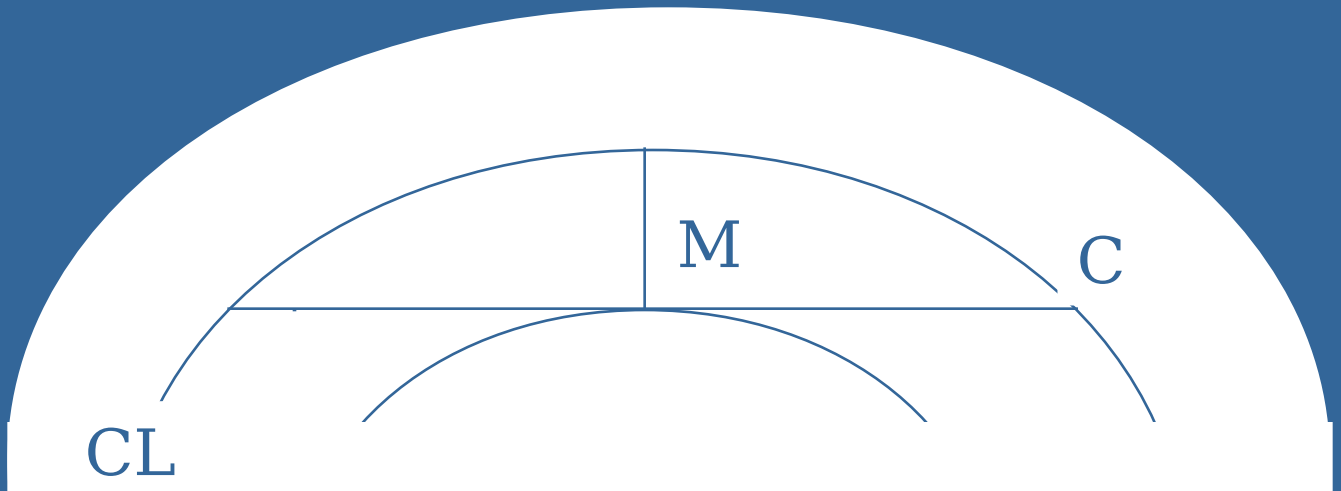


$$R = \frac{C^2}{8M} + \frac{M}{2}$$

M= 3
C= 15

M=MIDDLE ORDINATE
C= CHORD
CL= CENTERLINE

RADIUS OF A CURVE



$$R = \frac{C^2}{8M} + \frac{M}{2}$$

$$= \frac{15 \times 15}{8 \times 3} + \frac{3}{2}$$

$$= \frac{225}{24} + 1.5$$

$$= 9.375 + 1.5$$

$$= 10.875$$

$$= \underline{10}$$

M=MIDDLE ORDINATE

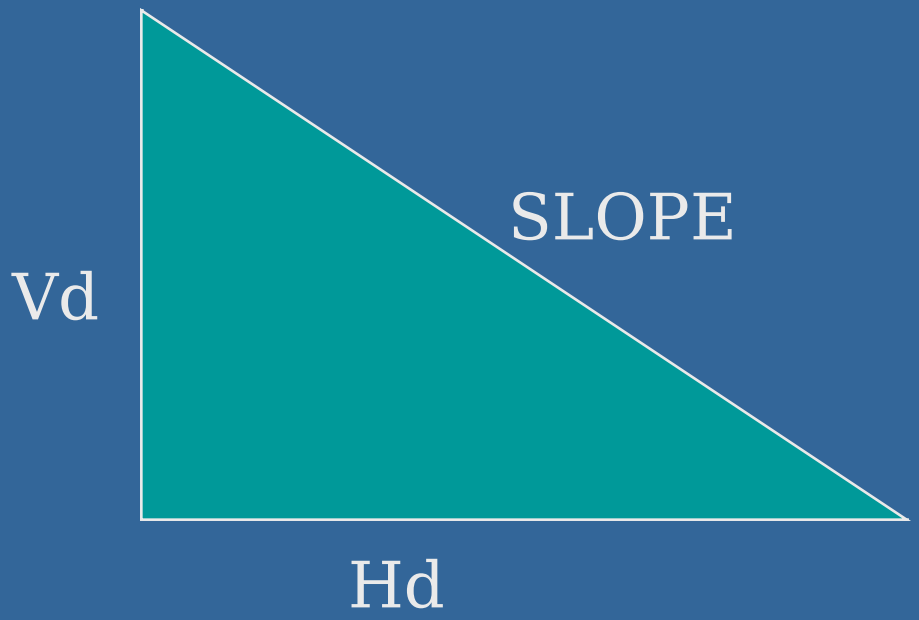
C= CHORD

CL= CENTERLINE

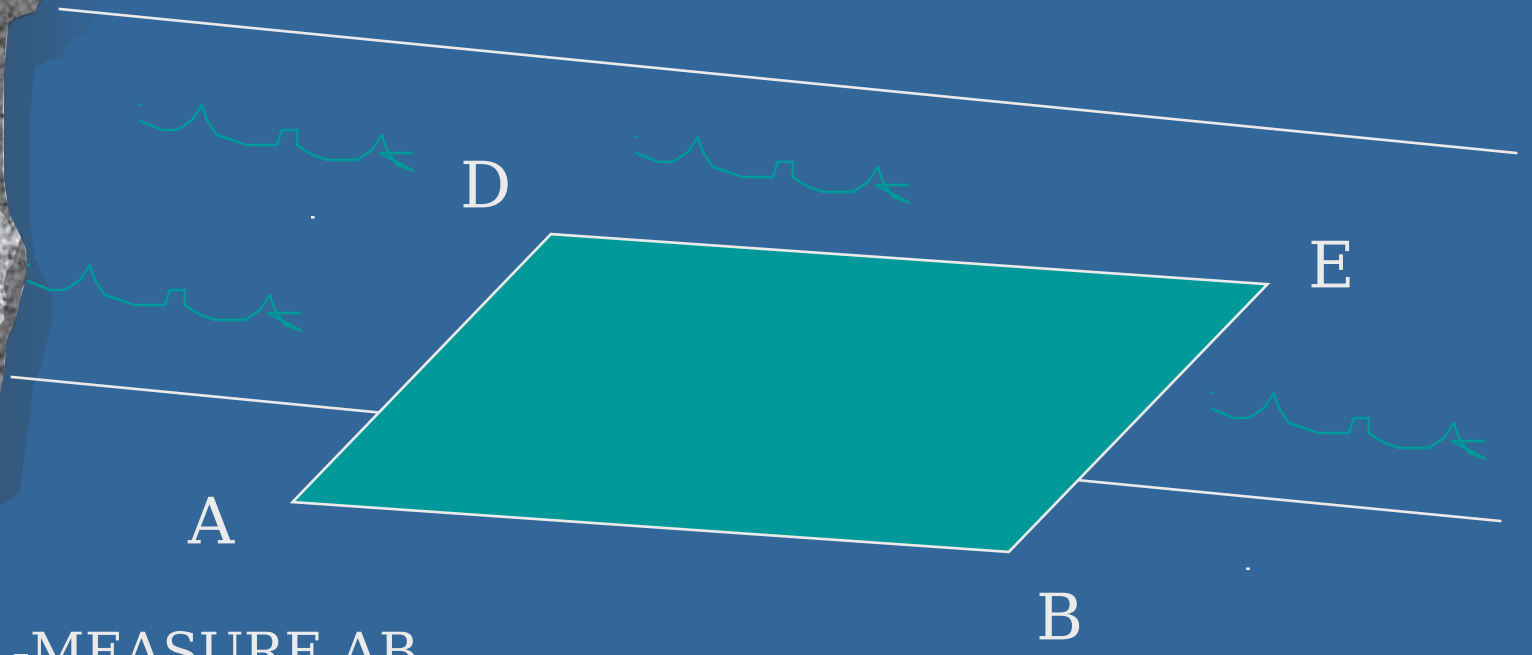
DETERMINE PERCENT OF SLOPE

PERCENT OF SLOPE FORMULA

PERCENT OF SLOPE= $\frac{\text{VERTICAL DISTANCE (Vd)}}{\text{HORIZONTAL DISTANCE (Hd)}}$ X



DETERMINE STREAM VELOCITY



-MEASURE AB
-THROW FLOATING OBJECT (EX.: A STICK) UPSTREAM OF START POINT
-RECORD TIM FOR OBJECT TO FLOAT FROM D TO E

$$\text{CURRENT} = \frac{\text{DISTANCE AB (IN METERS)}}{\text{TIME DE (IN SECONDS)}}$$

OVERLAY REQUIREMENTS

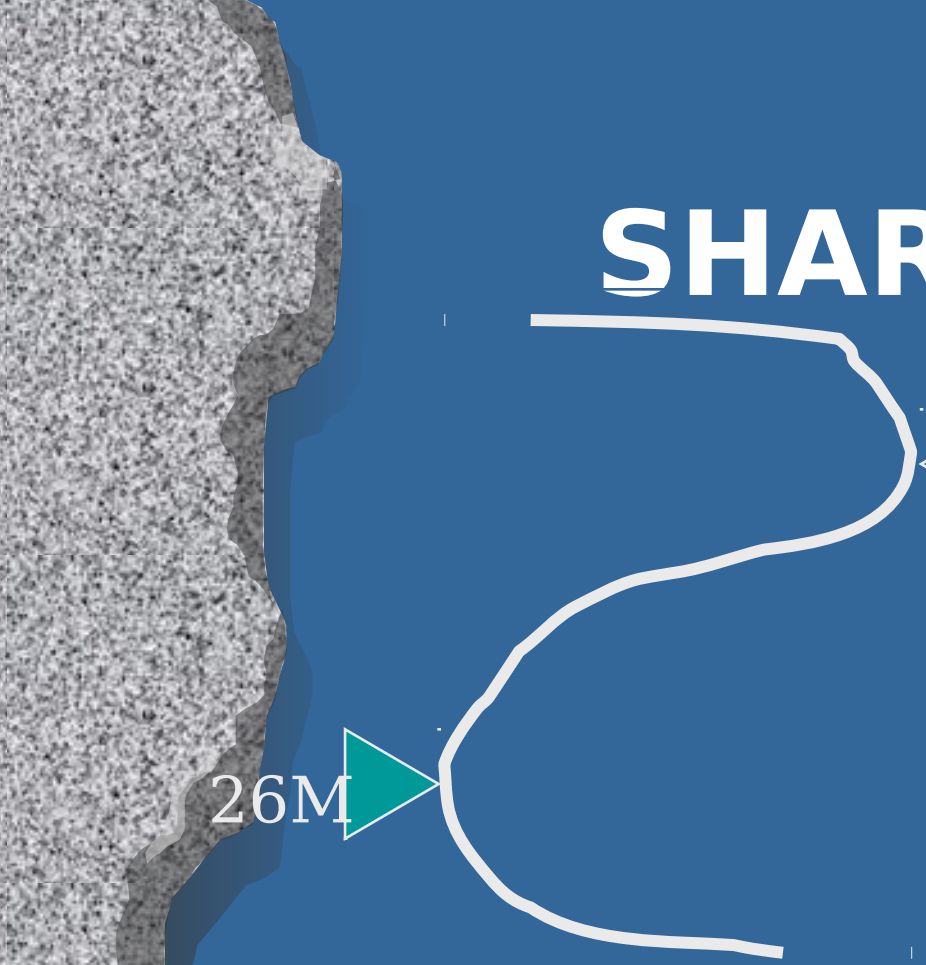
- MAGNETIC NORTH ARROW
- TWO GRID REFERENCE POINTS
- ROUTE DRAWN TO SCALE
- TITLE BLOCK CONTAINING
  - NAME
  - SOCIAL SECURITY #
  - UNIT
  - DATE AND TIME OF RECON
  - MAP AND EDITION
  - MAP SCALE
- ROUTE CLASSIFICATION FORMULA

OVERLAY SYMBOLS

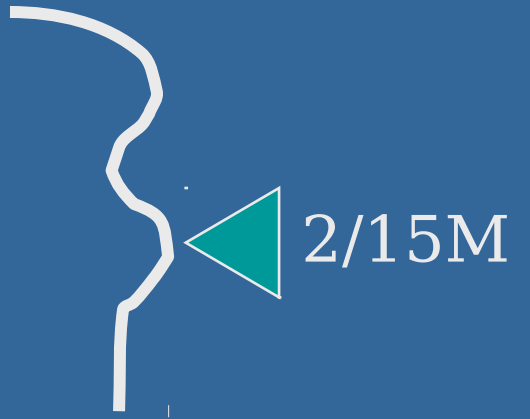
ROUTE RECONNAISSANCE OVERLAY

- ACCURATE AND CONCISE REPORT OF TRAFFIC CONDITIONS
- CONTAINS SPECIAL SYMBOLS IN THE FOLLOWING SLIDES

SHARP CURVES



- FIGURE INDICATES RADIUS OF CURVE IN METERS



- LEFT FIGURE INDICATES THE NUMBER OF CURVES, RIGHT FIGURE INDICATES RADIUS IN METERS OF SHARPEST CURVE

GRADES

5%<GRADE<7% — **6%**

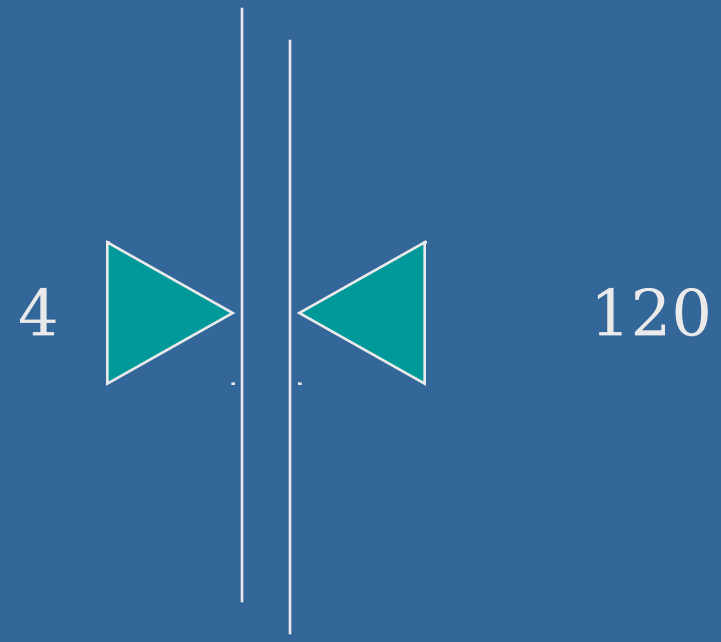
7%<GRADE<10% — **9%**

10%<GRADE<14%
11%

14<GRADE — **17%**

ARROWS POINT UP HILL
THE ACTUAL % F THE GRADE IS WRITTEN
BESIDE THE SYMBOL
THE LENGTH OF THE ARROW REPRESENTS
THE LENGTH OF THE GRADE IF
THE MAP SCALE PERMITS

WIDTH CONSTRICTIONS

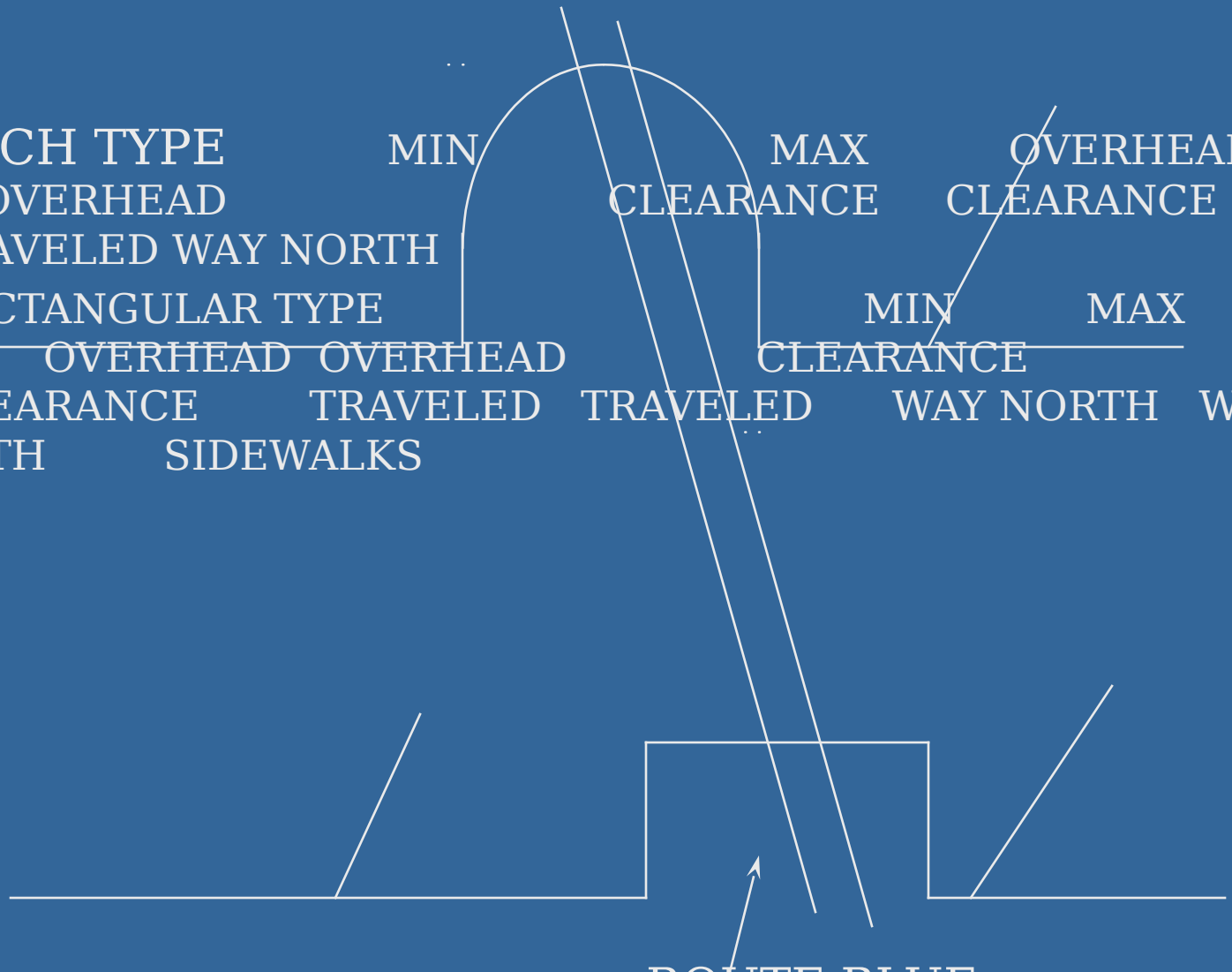


- THE FIGURE ON THE LEFT INDICATES THE WIDTH OF THE CONSTRICTION IN METERS
- FIGURE ON RIGHT INDICATES TOTAL CONSTRICTED LENGTH IN METERS

UNDERPASS SYMBOL

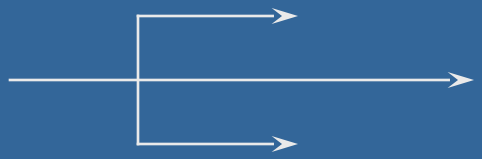
(INCLUDE SIDEWALKS IF PRESENT)

- ARCH TYPE MIN MAX OVERHEAD
  OVERHEAD CLEARANCE CLEARANCE
  TRAVELED WAY NORTH
- RECTANGULAR TYPE MIN MAX
  OVERHEAD OVERHEAD CLEARANCE
  CLEARANCE TRAVELED TRAVELED WAY NORTH WAY
  WITH SIDEWALKS



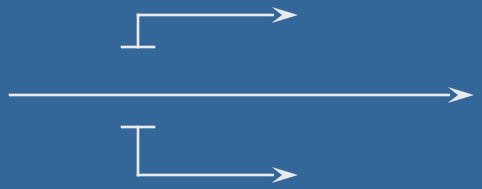
BYPASS CONDITIONS

- BYPASS EASY



- BYPASS DIFFICULT

- BYPASS IMPOSSIBLE



-USED IN RECONNAISSANCE WITH BRIDGE AN
TUNNEL RECONNAISSANCE SYMBOLS

EASY BYPASS

THE OBSTACLE CAN BE CROSSED WITHIN THE IMMEDIATE VICINITY OF THE BRIDGE BY A U.S. 2.5 TON TRUCK WITHOUT WORK TO IMPROVE THE BYPASS AREA

DIFFICULTY BYPASS

THE OBSTACLE CAN BE CROSSED WITHIN THE IMMEDIATE VICINITY OF THE BRIDGE BUT SOME WORK WILL BE NECESSARY TO PREPARE THE BYPASS AREA

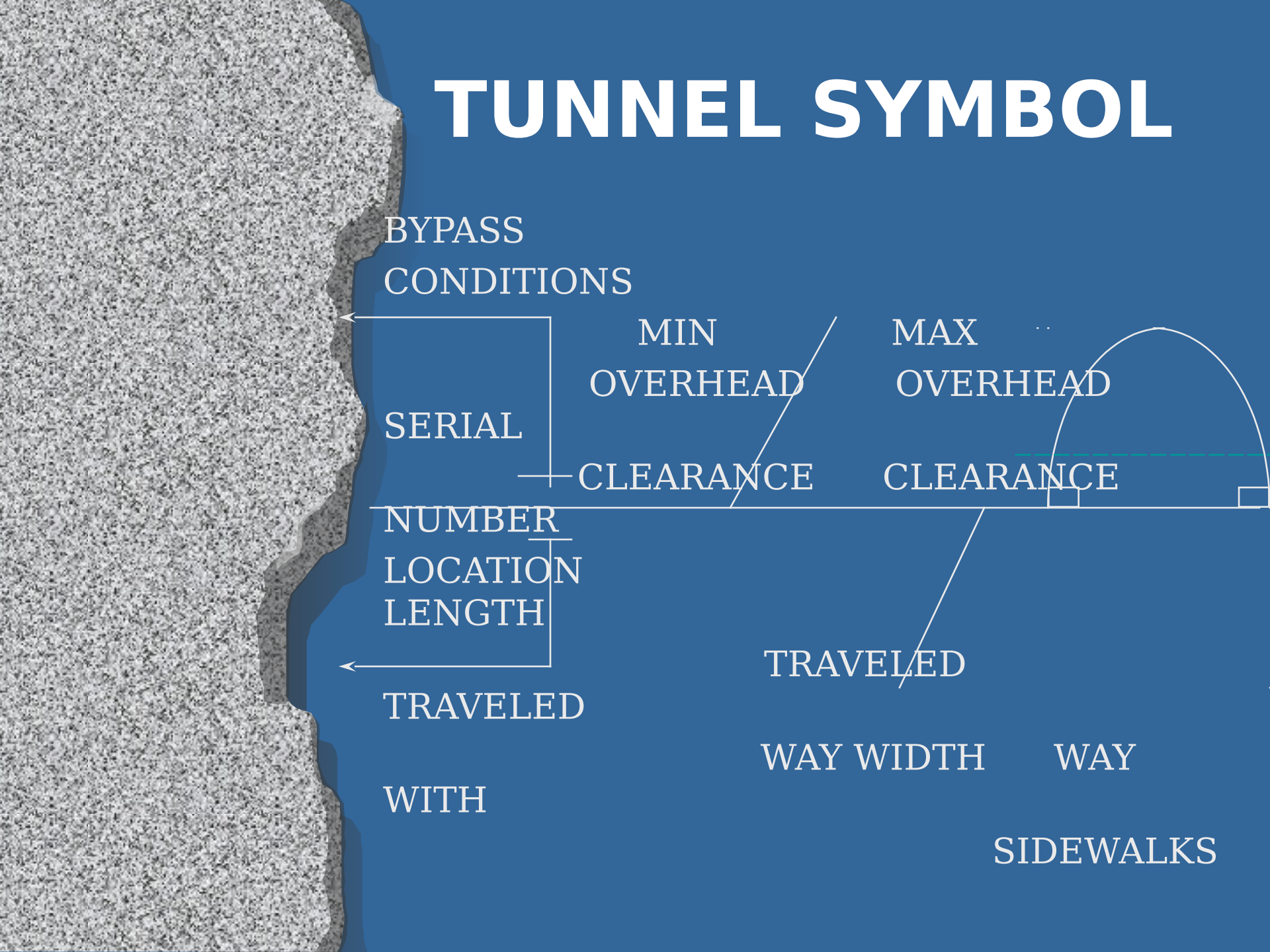
IMPOSSIBLE BYPASS

THE BRIDGE CAN ONLY BE CROSSED BY ONE OF THE FOLLOWING METHODS:

-REPAIR THE EXISTING BRIDGE

-CONSTRUCT A NEW BRIDGE

- TAKE A BRIDGE DETOUR SOME DISTANCE FROM THE OBSTACLE


TUNNEL SYMBOL
BYPASS
CONDITIONS
MIN
OVERHEAD
MAX
OVERHEAD
SERIAL
CLEARANCE
CLEARANCE
NUMBER
LOCATION
LENGTH
TRAVELED
TRAVELED
WAY WIDTH
WAY
WITH
SIDEWALKS

LEVEL GRADE RAILROAD CROSSING

- WITHOUT OVERHEAD OBSTRUCTIONS

- OVERHEAD OBSTRUCTION OF 4.5 METERS (L.E. POWER LINES)--IF OBSTRUCTION IS <4.3 METERS TALL, UNDERLINE IT

FORD SYMBOL

TYPE OF FORD:

V--VEHICLE FORD

P--PEDESTRIAN FORD

NATURE OF BOTTOM:

C--CLAY

G--GRAVEL

M--MUD

R--ROCK

P--ARTIFICIA PAVING

S--SAND

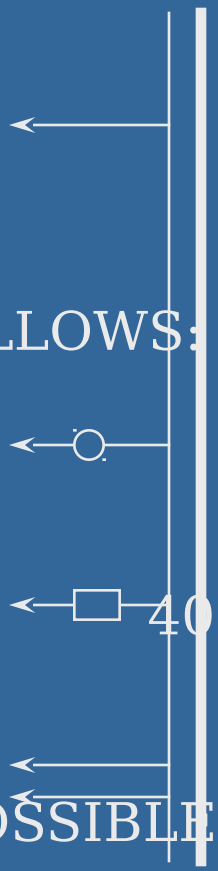
SEASONAL LIMITING FACTORS:

X--NONE EXCEPT FOR LIMITED DURATION AFTER FLASH FLOODING

Y--SIGNIFICANT SEASONAL LIMITATIONS

OFF-ROAD MOVEMENT

- POSSIBILITY OF DRIVING OFF-ROAD

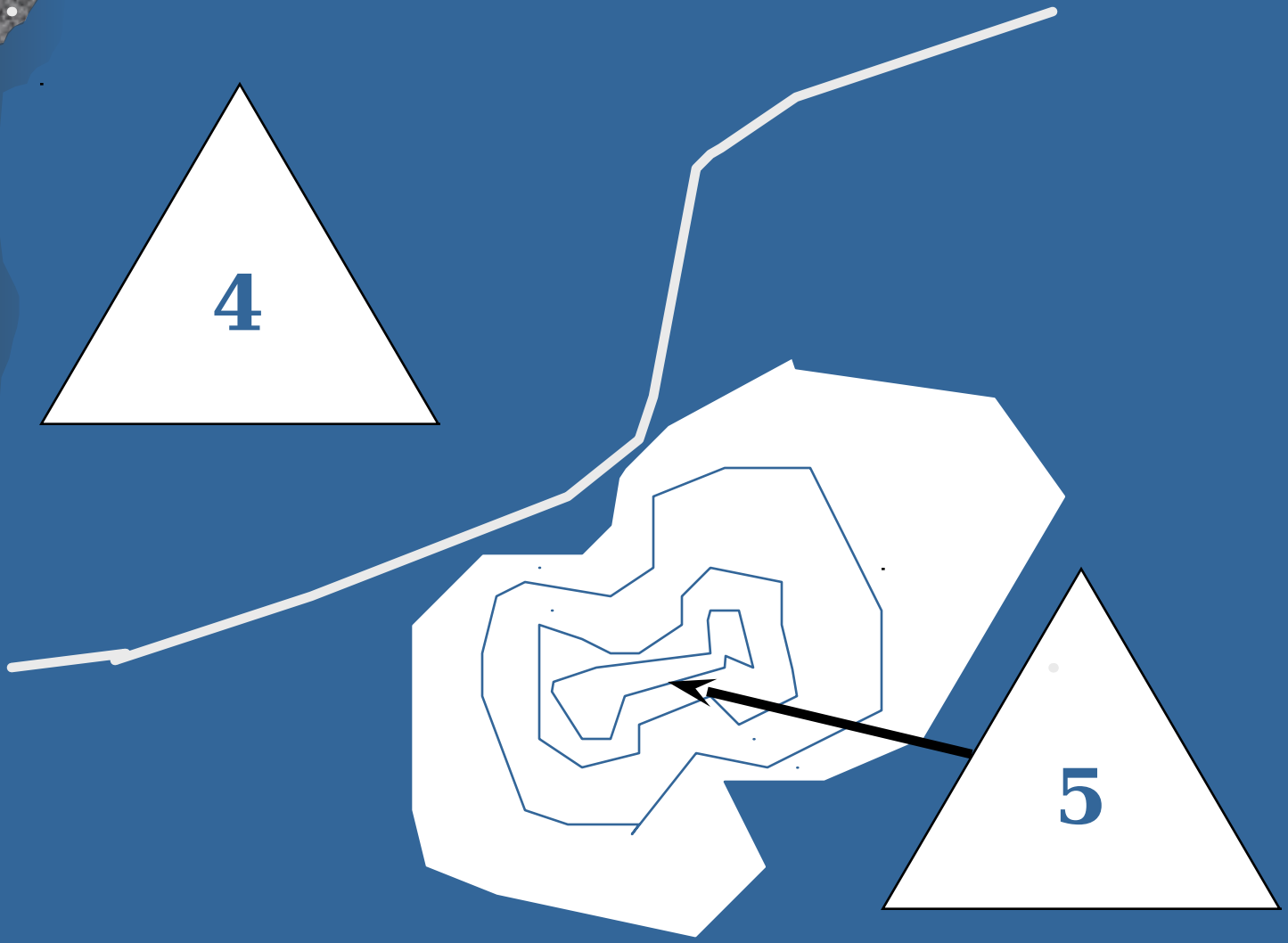


THE SYMBOL MY BE AMPLIFIED AS FOLLOWS:

- WHEELED VEHICLE
- TRACKED VEHICLE
- A LENGTH OF ROAD EXCEEDING
  1 KM WHERE DRIVING OFF IS POSSIBLE

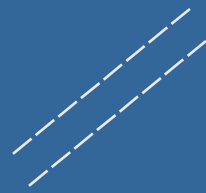
ARROWS INDICATE DIRECTION OF TURNOFF
THE FIGURE INDICATES THE LENGTH IN METERS OF THE TURNOFF

CRITICAL POINTS



OBSTACLE SYMBOLS

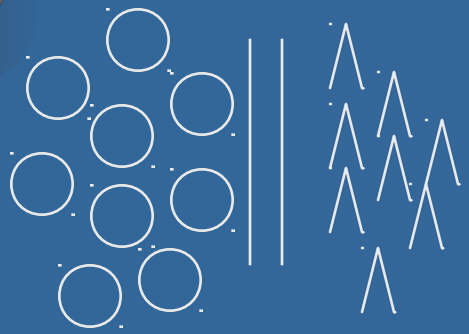
- PROPOSED
- PREPARED BUT POSSIBLE
- COMPLETED ROADBLOCK, CRATERS, AND BLOWN BRIDGESCENTER OF THE SYMBOL INDICATES POSITION OF BLOCK



LIMITS OF SECTOR

A “V” SHAPED SYMBOL PLACED AT THE BEGINNING AND ENDING OF A RECONNOITE SECTION OF A ROUTE OR ROAD

CONCEALMENT



WOODS BORDERING ROADS

ROAD LINED WITH TREES

DECIDUOUS TRESS (LEFT) AND EVERGREEN TREES (RIG

THESE SYMBOLS MAY ALSO BE USED IN CONJUNCTION WITH OFF ROAD MOVEMENT SYMBOL TO IDENTIFY HOLDING AREAS

TRAFFIC FLOW SYMBOLS

TO THE FLOT

FROM THE FLOT

AXIAL ROUTES

- RUN GENERALLY PERPENDICULAR TO THE FLOT
- REPRESENTED BY A SOLID LINE
- NAMED BY AN ODD NUMBER OR PICTURE

LATERAL ROUTES

- RUN GENERALLY PARALLEL TO THE FLOT
- REPRESENTED BY DASHED LINES
- NAMED BY AN EVEN NUMBER OR A WORD